



Questions and Answers for Clinicians 2004–2005

The Nasal-Spray Flu Vaccine — Live Attenuated Influenza Vaccine (LAIV)

Can health-care workers get LAIV?

Yes. Health-care workers who are healthy, less than 50 years of age, and are not pregnant can get LAIV. The one exception is health-care workers who care for severely immunocompromised patients in protected environments (e.g., patients that have received bone marrow transplants, or patients that have Severe Combined Immunodeficiency Disease). For these health-care workers, the flu shot is preferred because of a theoretical risk of passing the weakened live virus in LAIV to severely immunocompromised patients. If these health-care workers get LAIV, they must avoid contact with severely immunocompromised patients for 7 days after receiving LAIV. There have been no reports of transmission of LAIV from a health-care worker to any patient.

Who may administer LAIV?

Low-level introduction of vaccine viruses into the environment is likely unavoidable when administering LAIV. The risk of acquiring vaccine viruses from the environment is unknown but likely to be limited. Severely immunosuppressed persons should not administer LAIV. However, other persons at high risk for influenza complications may administer LAIV. These include persons with underlying medical conditions such as heart or lung disease, asthma, diabetes, or pregnancy, and persons aged 50 years of age and over.

Who can receive LAIV?

- Healthy people 5-49 years of age
- Women who are not pregnant
- Most out of home care givers
- Household contacts of children less than 6 months
- Household contacts of other persons at high risk of influenza-related complications, as long as these persons aren't severely immune compromised and require a protected environment
- Most health-care workers

Who should not receive LAIV?

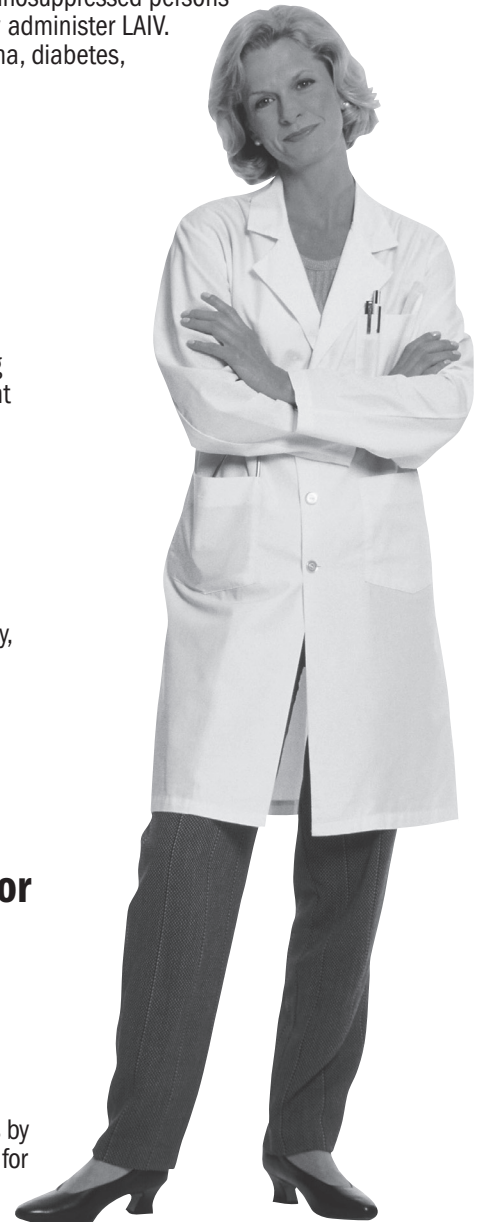
- People less than 5 years of age and people 50 years of age and over
- Pregnant women
- People with a medical condition such as heart or lung disease, asthma, diabetes, pregnancy, kidney failure; or people with illnesses that weaken the immune system, or who take medications that can weaken the immune system.
- Children or adolescents receiving daily aspirin
- People with a history of Guillain-Barré syndrome, a rare disorder of the nervous system
- People with a history of allergy to any of the components of LAIV or to eggs

What personal protective equipment is recommended for health-care workers who are giving the vaccine?

Use the same precautions that you would use for administering other vaccines. Disposable gloves are not required.

How effective is LAIV?

In one large study among children aged 15-85 months, LAIV reduced the chance of influenza illness by 92% compared with placebo. In a study among adults, the participants were not specifically tested for influenza. However, the study found 19% fewer severe febrile respiratory tract illnesses, 24% fewer respiratory tract illnesses with fever, 23-27% fewer days of illness, 13-28% fewer lost work days, 15-41% fewer health care provider visits, and 43-47% less use of antibiotics compared with placebo.



Can people who received inactivated influenza vaccine (the flu shot) last season get LAIV this season?

Yes. People who got inactivated influenza vaccine (the flu shot) last season can get the nasal-spray flu vaccine (LAIV) this season.

Are there any serious adverse events associated LAIV?

Use of LAIV may result in limited runny nose, sore throat, or fatigue. Serious adverse events, such as an allergic reaction are very uncommon. Persons with serious allergies to eggs should not be vaccinated with either the live or the inactivated influenza vaccines. Surveillance for adverse reactions should continue for LAIV as for any other vaccines or medications. Clinically significant adverse events after LAIV administration should be reported to Vaccine Adverse Event Reporting System (VAERS).

Can LAIV be given at the same time as other vaccines?

An inactivated vaccine may be given either at the same time or at any time before or after the nasal-spray flu vaccine. A live vaccine may be given together with the nasal-spray flu vaccine. If the two live vaccines are not given at the same visit, they should be given more than 4 weeks apart.

How is LAIV stored?

The nasal-spray flu vaccine (LAIV) must be stored frozen at -15°C or colder. It may not be stored in a frost-free freezer (because temperature cycling in these freezers may reach more than -15°C) unless a storage box provided by the manufacturer is used. However, this storage box is not necessary for vaccine shipped after November 2nd, 2004, through the end of this influenza season. The vaccine shipped after November 2nd will expire on February 8, 2005, and must be used by then, or returned or discarded. After thawing, the vaccine may be stored for up to 24 hours in a refrigerator at $2-8^{\circ}\text{C}$, and it should not be refrozen. Vaccine thawed for more than 24 hours should be discarded.

LAIV dosage and administration

LAIV is supplied in a prefilled single-use sprayer containing 0.5 mL of vaccine. Approximately 0.25 mL (i.e., half of the total sprayer contents) is sprayed into the first nostril while the recipient is in the upright position. An attached dose-divider clip is removed from the sprayer to administer the second half of the dose into the other nostril. If the vaccine recipient sneezes after administration, the dose does not need to be repeated.

LAIV should be administered annually according to the following schedule:

- Children aged 5–8 years previously unvaccinated at any time with either LAIV or inactivated influenza vaccine should receive 2 doses of LAIV at least 6 weeks apart.
- Children aged 5–8 years previously vaccinated at any time with either LAIV or inactivated influenza vaccine should receive 1 dose of LAIV. They do not require a second dose.
- Persons aged 9–49 years should receive 1 dose of LAIV.

Can LAIV be given to patients when they are ill?

The nasal-spray flu vaccine (LAIV) can be given to people with minor illnesses (e.g., diarrhea or mild upper respiratory tract infection with or without fever). However, if nasal congestion is present that might limit delivery of the vaccine to the nasal lining, then delaying of vaccination until the nasal congestion is reduced should be considered.

Can LAIV be used together with influenza antiviral medications?

If a person is taking an influenza antiviral drug (including Symmetrel [amantadine] for Parkinson's disease), then the nasal-spray flu vaccine should not be given until 48 hours after the last dose of the influenza antiviral medication was given. If a person has received the nasal-spray flu vaccine, an influenza antiviral medication should not be given until 2 weeks after the flu mist was administered. If, however, a patient is diagnosed with influenza illness and therapeutic use of antivirals is indicated, then treatment should begin immediately.

Does LAIV contain thimerosal?

No. LAIV does not contain thimerosal.



How can I get more information?

Public **1-800-CDC-INFO**; Clinician **1-877-554-4625**; Website **www.cdc.gov/flu**
VAERS **1-800-822-7967**; Website **www.vaers.org**

Department of Health and Human Services
Centers for Disease Control and Prevention

